

## ABSTRACT OF THE DISCLOSURE

The method of designing and manufacturing the artificial joint stem, comprising steps of performing analysis of the internal stress of the artificial joint stem and bone and the adhesive stress of the artificial stem and bone, using the computer, based on the three dimension data indicating the structure of the bone formed by using plural tomographic images of the bone, the design condition involving the form and stiffness of the artificial joint stem configured by using at least one of the tomographic images and the three dimension data, wherein if the result of the analysis does not satisfy the design condition, the condition is changed to have the computer reanalyze and if the result of the analysis satisfies the design condition, the artificial joint stem is designed and manufactured with the stem data based on the result of analysis and the design condition.